Guided drives DGRC

Key features

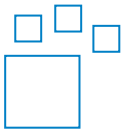
At a glance Link dgrc

Drive and guide unit in a single housing:
- Minimal space requirement
- Minimal mounting time
- Wide range of mounting options

Sturdy and precise:
- High resistance to torsion
- Excellent rigidity
- Maintenance-free

Plain-bearing guide for high torque and transverse force absorption

Ordering data – Modular system Link dgrc



Configurable product
This product and all its product options can be ordered online via the configurator.

Graphs Link dgrc

The graphs shown in this document are also available online. There, precise values can be displayed.

Guide

[GF]	Plain-bearing guide

High rigidity thanks to guide rods with large diameter and four plain-bearing bushes

Cushioning

[P]	Elastic cushioning rings/plates at both ends

The drive is fitted with elastic polymer end-position cushioning.
Advantages:
- Saves time

Position sensing

[A]	Via proximity switch

By using proximity switches, any position can be detected.

Key features

Special material properties

[F1A]	Recommended for production plants for manufacturing lithium-ion batteries, F1A

Product:

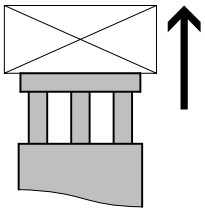
- Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils

Accessories:

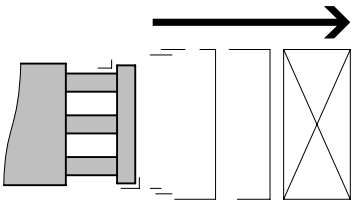
- Please contact your Festo representative for information on which accessories are suitable for manufacturing lithium-ion batteries

Use in conveyor technology

Lifting



Pushing



Other possible applications

- Clamping
- Moving

Type codes

001	Series	
DGRC	Guided drive	

002	Guide	
GF	Plain bearing	

003	Piston diameter [mm]	
12	12	
16	16	
20	20	
25	25	
32	32	
40	40	
50	50	

004	Stroke [mm]	
10	10	
20	20	
25	25	
30	30	
40	40	
50	50	
80	80	
100	100	
...	5 ... 100	

005	Cushioning	
P	Elastic cushioning rings/plates on both sides	

006	Position sensing	
A	For proximity sensor	

Datasheet

General technical data							
Piston Ø	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Stroke	5 ... 100 mm						
Pneumatic connection	M5			G1/8			G1/4
Design	Guide						
Guide	Plain-bearing guide						
Protection against rotation/guide	Guide rod with yoke						
Mode of operation	Double-acting						
Cushioning	Elastic cushioning rings/plates at both ends						
Position sensing	Via proximity switch						
Mounting position	Any						

Operating and environmental conditions							
Piston Ø	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Operating pressure	0.2 ... 1 MPa			0.15 ... 1 MPa			
Operating pressure	2 ... 10 bar			1.5 ... 10 bar			
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]						
Note on the operating/pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)						
Drive unit operating mode	Yoke						
Ambient temperature[1)]	–10 ... +60 °C						
Corrosion resistance class CRC2)	0 - no corrosion stress						

1) Note operating range of proximity switches
2) More information www.festo.com/x/topic/crc

Speeds							
Piston Ø	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Max. speed	0.8 m/s						0.6 m/s

Forces							
Piston Ø	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Theoretical force at 0.6 MPa (6 bar, 87 psi), advancing	68 N	121 N	188 N	295 N	482 N	754 N	1,178 N
Theoretical force at 0.6 MPa (6 bar, 87 psi), retracting	51 N	90 N	141 N	247 N	415 N	686 N	1,057 N

Impact energy							
Piston Ø	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Impact energy in the end positions	0.07 J	0.15 J	0.2 J	0.3 J	0.4 J	0.7 J	1 J

Permissible impact velocity:

$$v = \sqrt{\frac{2 \cdot E}{m_1 + m_2}}$$

Maximum permissible mass:

$$m_2 = \frac{2 \cdot E}{v^2} - m_1$$

v	Permissible impact speed
E	Max. impact energy
m1	Moving mass (drive)
m2	Moving payload

Note

These specifications represent the maximum values that can be achieved. The maximum permissible impact energy must be observed.

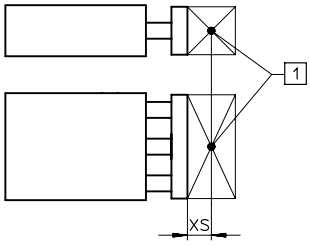
Datasheet

Stroke	Piston ø						
	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Product weight							
10 mm	173.8 g	199.7 g	–	–	–	–	–
20 mm	208.3 g	238.4 g	364.6 g	476.8 g	717.8 g	–	–
25 mm	226.6 g	259 g	390.6 g	514.6 g	768 g	1,083.8 g	1,621.7 g
30 mm	244.9 g	279.5 g	420.1 g	552.4 g	811.5 g	–	–
40 mm	281.3 g	320.6 g	478.8 g	622 g	912 g	–	–
50 mm	317.8 g	361.6 g	537.6 g	697.6 g	1,012.6 g	1,406.5 g	2,059 g
80 mm	439.1 g	504.2 g	753.6 g	980.2 g	1,363.9 g	1,888.3 g	2,680.7 g
100 mm	512.1 g	586.4 g	871.3 g	1,131.4 g	1,565 g	2,156.3 g	3,042 g
Moving mass							
10 mm	85.2 g	95.5 g	–	–	–	–	–
20 mm	99.5 g	111.5 g	183.8 g	247.5 g	395.7 g	–	–
25 mm	106.7 g	119.6 g	195.5 g	262.4 g	415.5 g	595.2 g	839.3 g
30 mm	113.9 g	127.6 g	207.3 g	277.3 g	435.4 g	–	–
40 mm	128.2 g	143.7 g	230.7 g	307 g	475 g	–	–
50 mm	142.5 g	159.7 g	254.2 g	336.8 g	514.7 g	738 g	999 g
80 mm	200 g	232.1 g	371.6 g	490.1 g	689.5 g	996.3 g	1,277.6 g
100 mm	228.7 g	264.3 g	418.6 g	549.6 g	768.8 g	1,110.5 g	1,405.4 g
Centre of gravity of the moving mass as a function of the stroke							
10 mm	18.5 mm	17.8 mm	–	–	–	–	–
20 mm	23.1 mm	22.5 mm	24.3 mm	23.4 mm	28 mm	–	–
25 mm	25.5 mm	24.8 mm	26.6 mm	25.7 mm	30.2 mm	32.5 mm	34.1 mm
30 mm	27.9 mm	27.2 mm	28.9 mm	28 mm	32.5 mm	–	–
40 mm	32.7 mm	32 mm	33.6 mm	32.6 mm	37 mm	–	–
50 mm	37.5 mm	36.8 mm	38.4 mm	37.3 mm	41.7 mm	44.3 mm	45.3 mm
80 mm	57.4 mm	59.4 mm	63.7 mm	62.9 mm	63.3 mm	66.6 mm	66.3 mm
100 mm	67.3 mm	69.2 mm	73.4 mm	72.6 mm	72.9 mm	76.3 mm	75.8 mm

Materials

Piston Ø	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Housing material	Anodised wrought aluminium alloy						
Cover material	Wrought aluminium alloy						
Piston rod material	High-alloy steel						
Guide rod material	High-alloy steel						
End plate material	Anodised wrought aluminium alloy						
Sealing material	NBR						
Dynamic seals material	TPE-U(PU)						
Note on materials	RoHs-compliant						
LABS (PWIS) conformity	VDMA24364-B1/B2-L						
Suitable for the production of Li-ion batteries	Product complies with the Festo internal product definition for use in battery production: metals with more than 1% by mass of copper, zinc or nickel are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils						

Datasheet



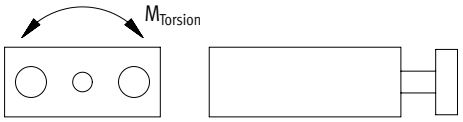
[1] Centre of gravity of payload

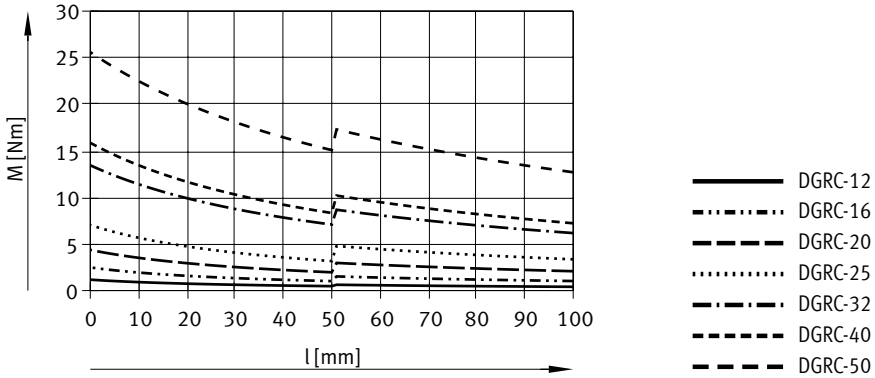
Centre of gravity distance xs							
Piston Ø	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
	50 mm						

Max. payload F as a function of the stroke for a defined centre of gravity distance xs							
Stroke	Piston Ø						
	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
10 mm	22.8 N	42.9 N	–	–	–	–	–
20 mm	20.5 N	38.7 N	60.3 N	82 N	158.3 N	–	–
25 mm	19.6 N	36.9 N	57.6 N	78.4 N	152.1 N	162 N	231.8 N
30 mm	18.7 N	35.3 N	55.2 N	75.1 N	146.4 N	–	–
40 mm	17.1 N	32.3 N	50.8 N	69.2 N	136.1 N	–	–
50 mm	15.7 N	29.8 N	47.1 N	64.1 N	127.1 N	135.1 N	197.2 N
80 mm	17.9 N	40.2 N	65.8 N	89.5 N	139.4 N	147.9 N	202.8 N
100 mm	15.9 N	36 N	59.4 N	80.9 N	126.3 N	133.8 N	184.9 N

Datasheet

Permissible torque load M as a function of the stroke





Stroke	Piston ø						
[mm]	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
10 mm	0.91 Nm	1.93 Nm	–	–	–	–	–
20 mm	0.74 Nm	1.58 Nm	2.94 Nm	4.74 Nm	9.92 Nm	–	–
25 mm	0.68 Nm	1.45 Nm	2.72 Nm	4.38 Nm	9.3 Nm	10.95 Nm	19.02 Nm
30 mm	0.63 Nm	1.34 Nm	2.52 Nm	4.07 Nm	8.76 Nm	–	–
40 mm	0.54 Nm	1.16 Nm	2.21 Nm	3.56 Nm	7.84 Nm	–	–
50 mm	0.47 Nm	1.02 Nm	1.96 Nm	3.17 Nm	7.09 Nm	8.33 Nm	15.08 Nm
80 mm	0.47 Nm	1.18 Nm	2.37 Nm	3.83 Nm	7.01 Nm	8.22 Nm	14.27 Nm
100 mm	0.4 Nm	1.02 Nm	2.08 Nm	3.35 Nm	6.17 Nm	7.23 Nm	12.7 Nm

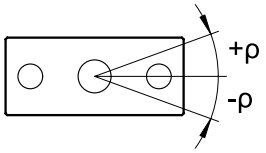
Note

Engineering tool

➔ www.festo.com/engineeringtools

Datasheet

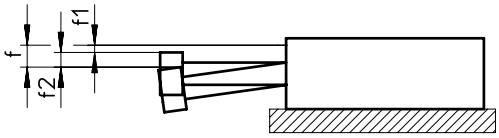
Torsional backlash ρ



Piston ⌀	12 mm	16 mm	20 mm	25 mm	32 mm	40 mm	50 mm
Average torsional backlash[1)]	±0.065°		±0.055°	±0.045°		±0.035°	

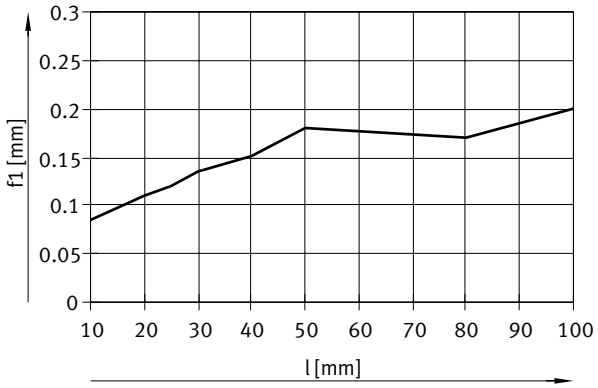
1) In retracted condition, unloaded

Deflection of the end plate



f = f1 + f2
f = total deflection of the end plate
f1 = deflection due to average bearing clearance
bearing clearance GF with production tolerance ±0.01 mm
f2 = deflection due to transverse force

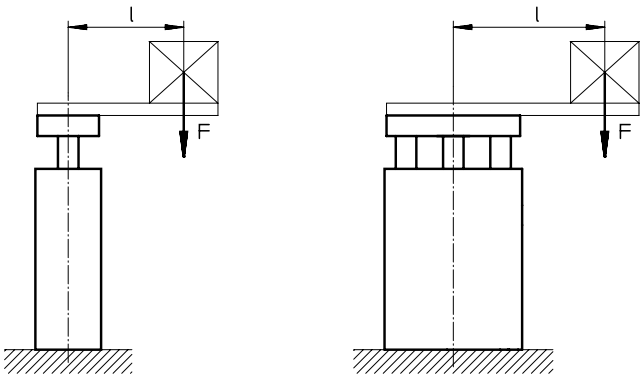
Deflection f1 due to bearing clearance as a function of stroke l (with no load)



DGRC-12 ... 50

Datasheet

Use as a lifting cylinder



Permissible eccentric load at 0.6 MPa (6 bar, 87 psi):

Piston ø	12 mm	16 mm	20 mm	25 mm
Load	27 N	48 N	85 N	133 N

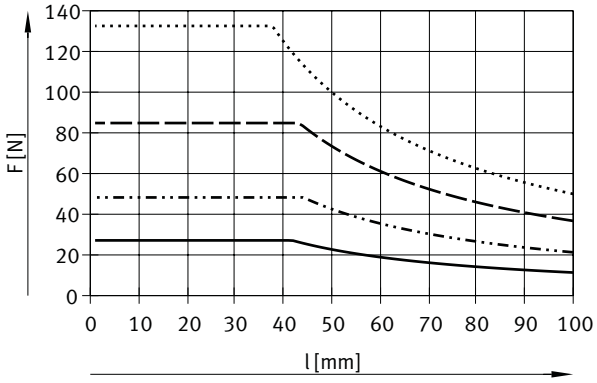
Permissible eccentric load at a different pressure:

Piston ø	12 mm	16 mm	20 mm	25 mm
Load	≤ 40%[1)]		≤ 45%[1)]	

1) The theoretical longitudinal force at the corresponding pressure

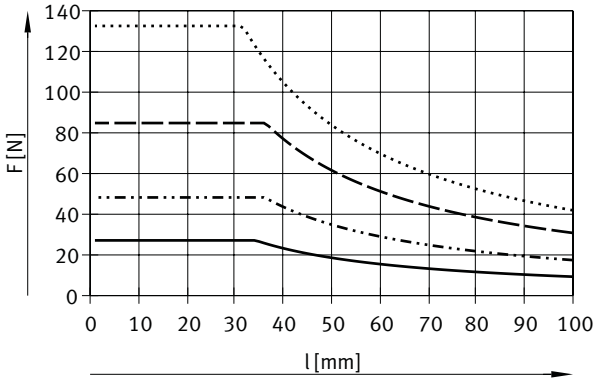
F = longitudinal force
l = lever arm

DGRC-12 ... 25, stroke 5 ... 10 mm



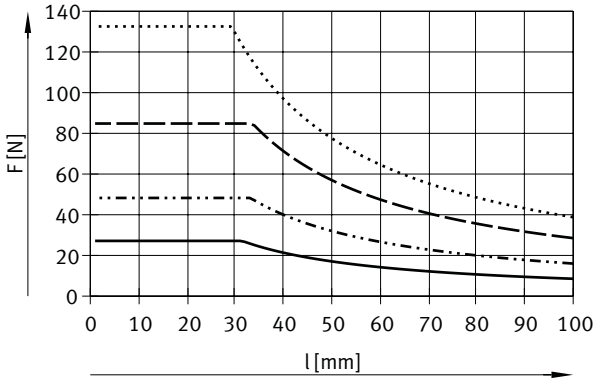
DGRC-12
DGRC-16
DGRC-20
DGRC-25

DGRC-12 ... 25, stroke 15 ... 20 mm



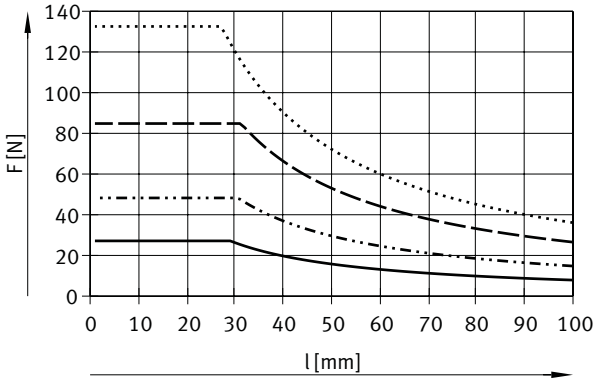
DGRC-12
DGRC-16
DGRC-20
DGRC-25

DGRC-12 ... 25, stroke 25 mm



DGRC-12
DGRC-16
DGRC-20
DGRC-25

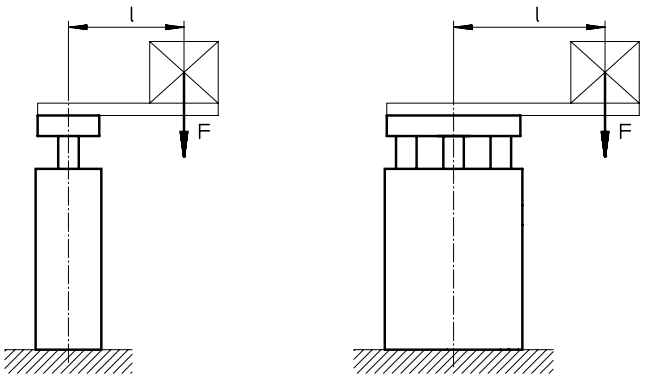
DGRC-12 ... 25, stroke 30 mm



DGRC-12
DGRC-16
DGRC-20
DGRC-25

Datasheet

Use as a lifting cylinder



Permissible eccentric load at 0.6 MPa (6 bar, 87 psi):

Piston ø	12 mm	16 mm	20 mm	25 mm
Load	27 N	48 N	85 N	133 N

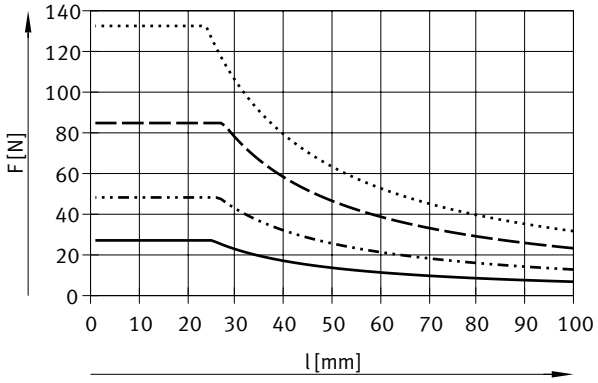
Permissible eccentric load at a different pressure:

Piston ø	12 mm	16 mm	20 mm	25 mm
Load	≤ 40%[1)]		≤ 45%[1)]	

1) The theoretical longitudinal force at the corresponding pressure

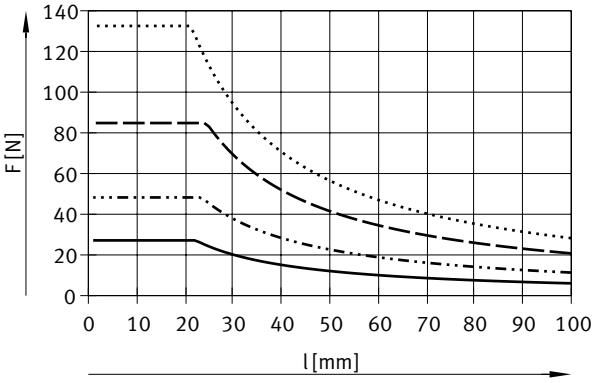
F = longitudinal force
l = lever arm

DGRC-12 ... 25, stroke 40 mm



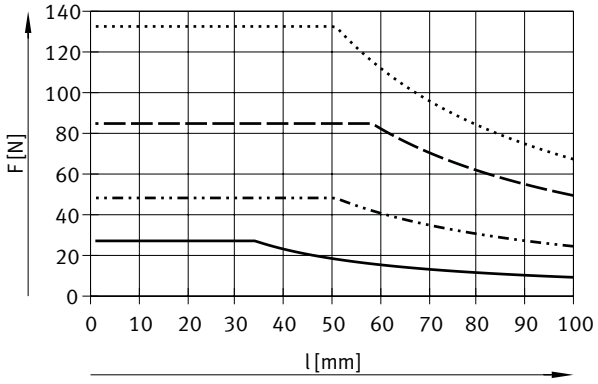
DGRC-12
DGRC-16
DGRC-20
DGRC-25

DGRC-12 ... 25, stroke 45 ... 50 mm



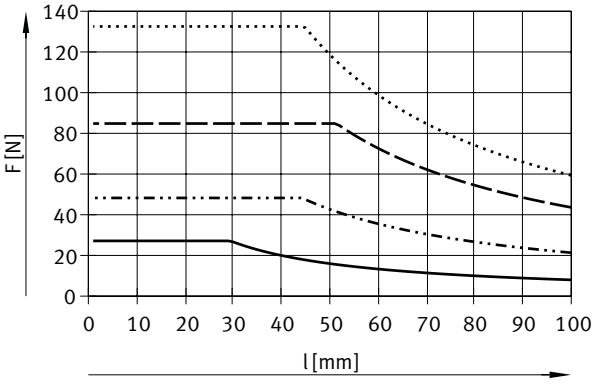
DGRC-12
DGRC-16
DGRC-20
DGRC-25

DGRC-12 ... 25, stroke 55 ... 80 mm



DGRC-12
DGRC-16
DGRC-20
DGRC-25

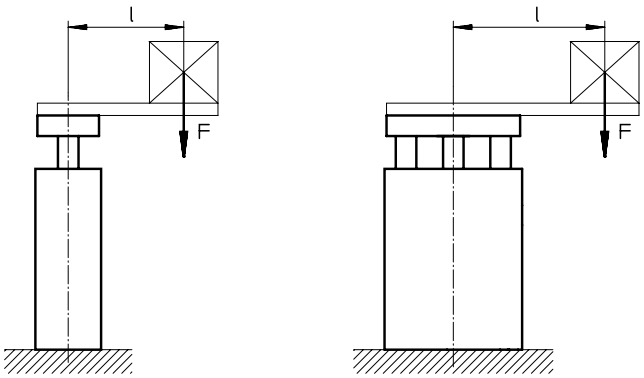
DGRC-12 ... 25, stroke 85 ... 100 mm



DGRC-12
DGRC-16
DGRC-20
DGRC-25

Datasheet

Use as a lifting cylinder



Permissible eccentric load at 0.6 MPa (6 bar, 87 psi):

Piston ø	32 mm	40 mm	50 mm
Load	241 N	415 N	648 N

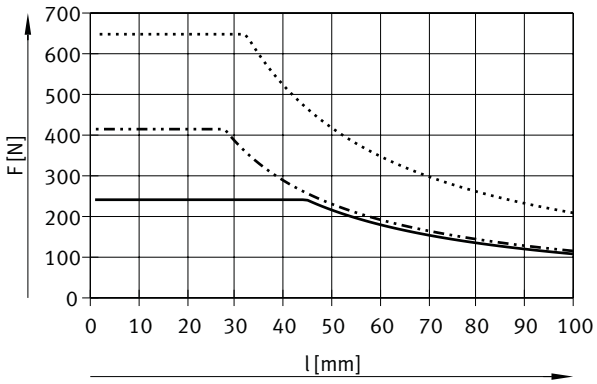
Permissible eccentric load at a different pressure:

Piston ø	32 mm	40 mm	50 mm
Load	≤ 50%[1)]	≤ 55%[1)]	

1) The theoretical longitudinal force at the corresponding pressure

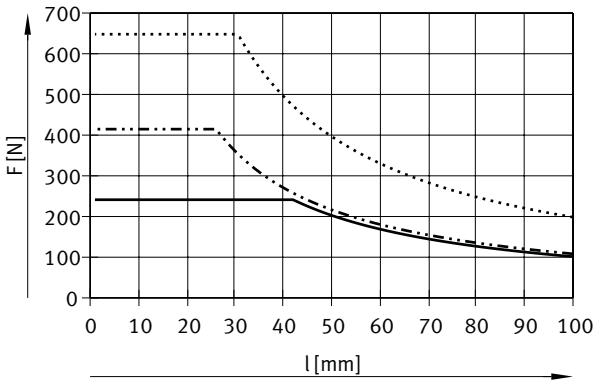
F = longitudinal force
l = lever arm

DGRC-32 ... 50, stroke 20 mm



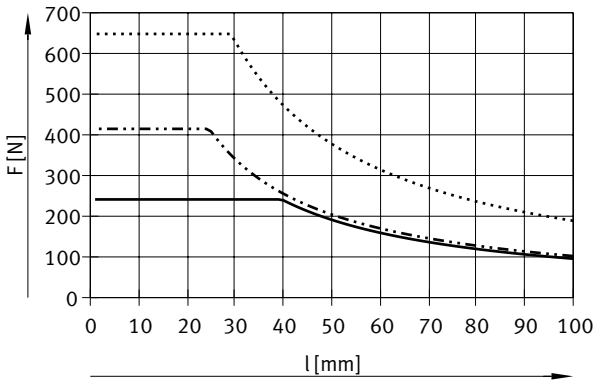
DGRC-32
DGRC-40
DGRC-50

DGRC-32 ... 50, stroke 25 mm



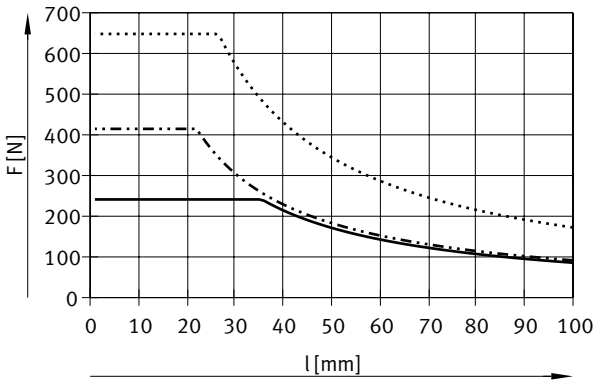
DGRC-32
DGRC-40
DGRC-50

DGRC-32 ... 50, stroke 30 mm



DGRC-32
DGRC-40
DGRC-50

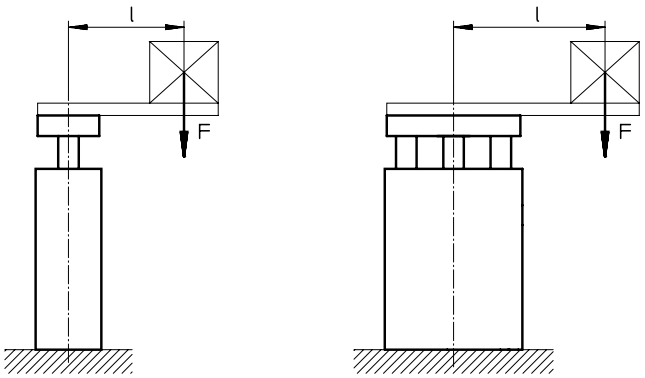
DGRC-32 ... 50, stroke 40 mm



DGRC-32
DGRC-40
DGRC-50

Datasheet

Use as a lifting cylinder



Permissible eccentric load at 0.6 MPa (6 bar, 87 psi):

Piston ø	32 mm	40 mm	50 mm
Load	241 N	415 N	648 N

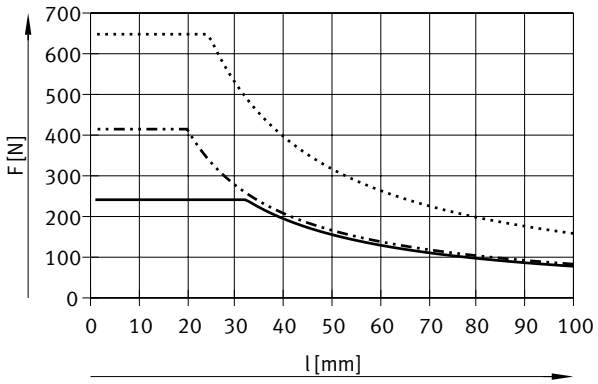
Permissible eccentric load at a different pressure:

Piston ø	32 mm	40 mm	50 mm
Load	≤ 50%[1)]	≤ 55%[1)]	

1) The theoretical longitudinal force at the corresponding pressure

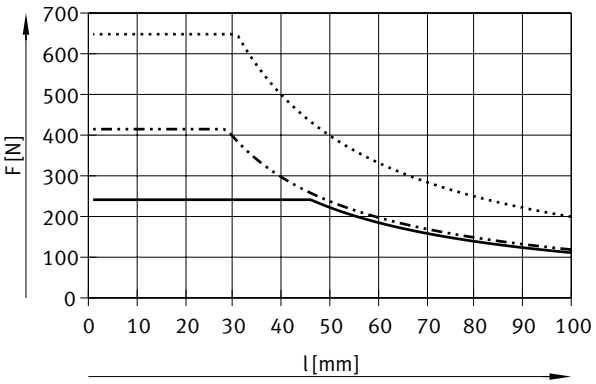
F = longitudinal force
l = lever arm

DGRC-32 ... 50, stroke 45 ... 50 mm



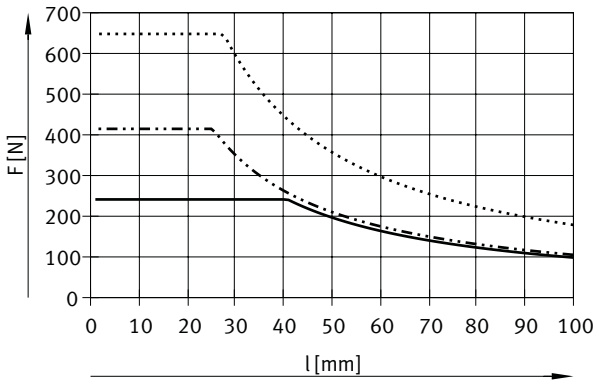
DGRC-32
DGRC-40
DGRC-50

DGRC-32 ... 50, stroke 55 ... 80 mm



DGRC-32
DGRC-40
DGRC-50

DGRC-32 ... 50, stroke 85 ... 100 mm

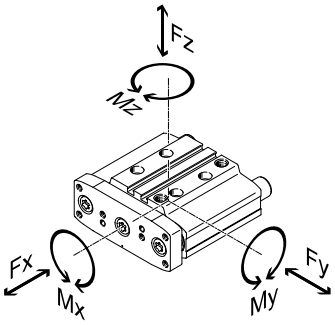


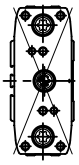
DGRC-32
DGRC-40
DGRC-50

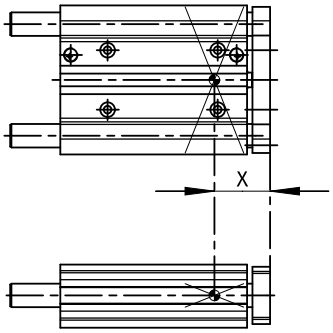
Datasheet

Load values

The indicated forces and torques refer to the centre of the guide.







If several of the forces and torques listed below act simultaneously on the guided drive, the following equation must be fulfilled in addition to the maximum loads listed:

Calculating the load comparison factor:

$$f_v = \frac{|F_{y1}|}{F_{y2}} + \frac{|F_{z1}|}{F_{z2}} + \frac{|M_{x1}|}{M_{x2}} + \frac{|M_{y1}|}{M_{y2}} + \frac{|M_{z1}|}{M_{z2}} \leq 1$$

Distance X

Piston ø	Stroke	Dimension X
12 mm	5 ... 50 mm	23.75 mm
	55 ... 100 mm	29.75 mm
16 mm	5 ... 50 mm	23.75 mm
	55 ... 100 mm	33.75 mm
20 mm	5 ... 50 mm	28 mm
	55 ... 100 mm	41.5 mm
25 mm	5 ... 50 mm	28 mm
	55 ... 100 mm	41.5 mm
32 mm	5 ... 50 mm	36.5 mm
	55 ... 100 mm	45.5 mm
40 mm	5 ... 50 mm	36.5 mm
	55 ... 100 mm	45.5 mm
50 mm	5 ... 50 mm	46 mm
	55 ... 100 mm	55 mm

Datasheet

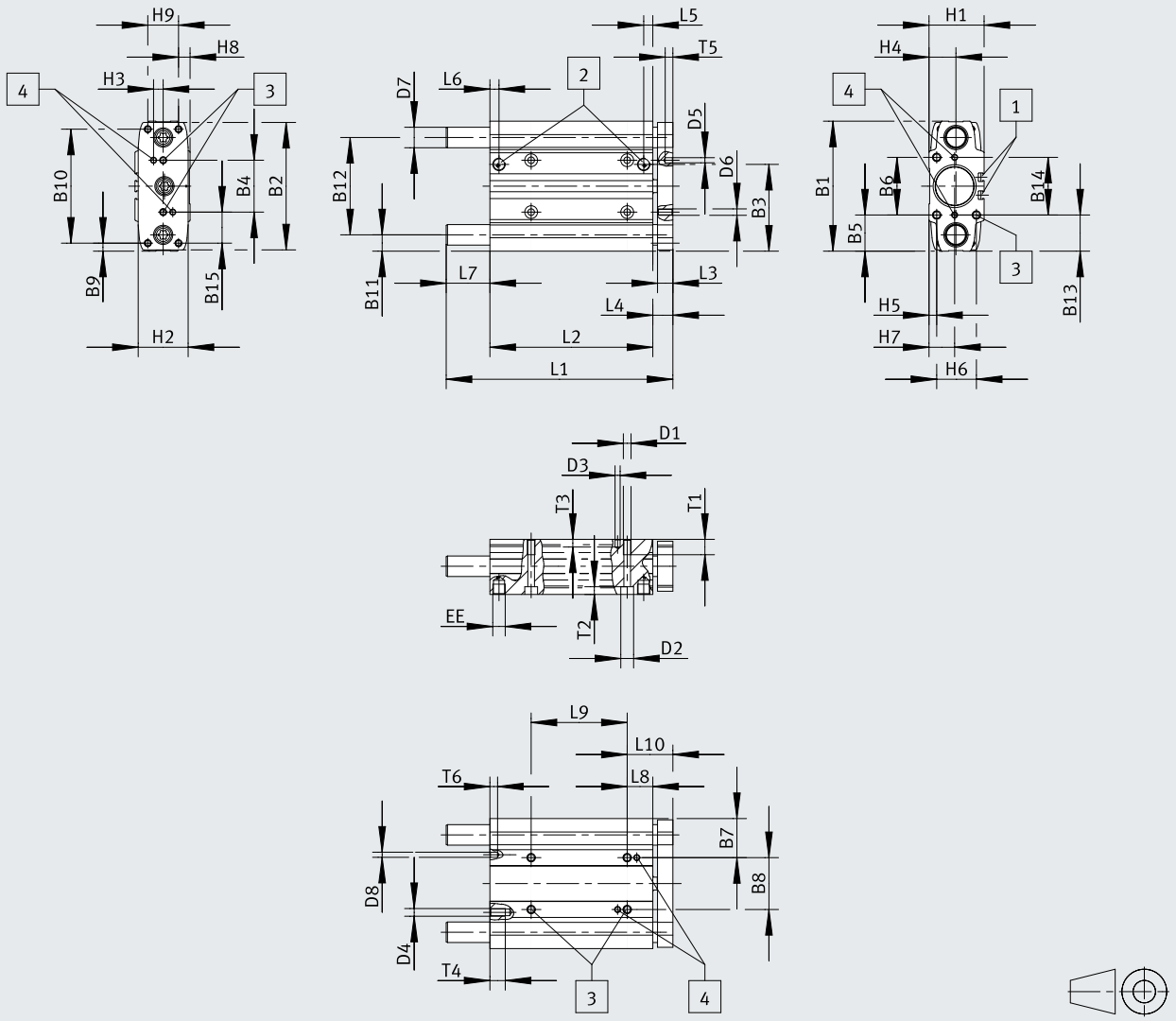
Max. permissible forces and torques for plain-bearing guide GF

The indicated forces and torques refer to the centre of the guide.

Piston ø	Stroke	Static/dynamic (for a service life of 10000 km)		
		$Fy_{max.}/Fz_{max.}$	$Mx_{max.}$	$My_{max.}/Mz_{max.}$
12 mm	10 ... 50 mm	187 N	3.55 Nm	2.2 Nm
	80 ... 100 mm	187 N	3.55 Nm	3.32 Nm
16 mm	10 ... 50 mm	350.7 N	7.54 Nm	4.12 Nm
	80 ... 100 mm	350.7 N	7.54 Nm	7.63 Nm
20 mm	20 ... 50 mm	487.2 N	13.15 Nm	6.82 Nm
	80 ... 100 mm	487.2 N	13.15 Nm	13.4 Nm
25 mm	20 ... 50 mm	663 N	21.22 Nm	9.28 Nm
	80 ... 100 mm	663 N	21.22 Nm	18.23 Nm
32 mm	20 ... 50 mm	989.7 N	37.61 Nm	20.29 Nm
	80 ... 100 mm	989.7 N	37.61 Nm	29.19 Nm
40 mm	25 ... 50 mm	1,057 N	44.39 Nm	21.67 Nm
	80 ... 100 mm	1,057 N	44.39 Nm	31.18 Nm
50 mm	25 ... 50 mm	1,252.7 N	68.27 Nm	35.08 Nm
	80 ... 100 mm	1,252.7 N	68.27 Nm	46.35 Nm

Dimensions

Guided drives DGRC Download CAD data www.festo.com



[1] Mounting slot for proximity switch
[2] Compressed air supply port
[3] Mounting thread
[4] Tolerance between the centring holes ±0.02 mm

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15
DGRC-GF-12-...-PA	56.9	54.9	39.25	17.5	17.45	22	19.7	17.5	4.45	48	9.45	38	18.95	19	15.25
DGRC-GF-16-...-PA	61.9	59.9	41.95	22.5	16.95	28	19.7	22.5	4.95	52	9.45	43	18.45	25	14.75
DGRC-GF-20-...-PA	76	74	49	28	21	34	24	28	5.5	65	11	54	22	32	18.5
DGRC-GF-25-...-PA	88	86	58.9	34	24	40	27	34	5	78	12	64	25	38	22
DGRC-GF-32-...-PA	101.5	99.5	67.75	40.5	28.25	45	30.5	40.5	6.25	89	12.75	76	28.25	45	24.25
DGRC-GF-40-...-PA	114	112	75	50.5	30.5	53	31.75	50.5	8	98	15	84	30.5	53	23.75
DGRC-GF-50-...-PA	139.6	137.6	92.3	61	35.8	68	39.3	61	9.3	121	15.3	109	35.8	68	30

	D1	D2 ø	D3 ø H9	D4	D5 ø H9	D6	D7 ø h8	D8 ø H9	EE	H1	H2	H3	H4	H5	H6
DGRC-GF-12-...-PA	M4	6.5	3	M4	3	M3	10	3	M5	24.5	23	7.5	11.5	3.5	17.5
DGRC-GF-16-...-PA	M4	6.5	3	M4	3	M3	10	3	M5	26.5	24.5	7.5	12.5	4	18.5
DGRC-GF-20-...-PA	M5	8	4	M5	4	M4	12	4	M5	31	29	7.5	14.4	4.5	22
DGRC-GF-25-...-PA	M6	10	4	M6	4	M5	14	4	G1/8	35.5	34	7.5	16.5	5	25.5
DGRC-GF-32-...-PA	M6	10	4	M6	4	M5	16	4	G1/8	43	39	7.5	21	6	31
DGRC-GF-40-...-PA	M8	11	5	M8	5	M6	20	5	G1/8	51	43	10	23.75	7.25	36.5
DGRC-GF-50-...-PA	M8	11	5	M8	5	M6	20	5	G1/4	61.5	51	10	28.5	8	45.5

Dimensions

	H7	H8	H9	L3	L4	L5	L6	L8	L10	T1	T2	T3	T4	T5	T6
DGRC-GF-12-...-PA	11.5	5.5	14	8	12	4.7	4.7	12	24	8	8	6	8	6	6
DGRC-GF-16-...-PA	11.5	6	14.5	8	12	5.9	5.9	14	26	8	8	6	8	6	6
DGRC-GF-20-...-PA	14.4	6.75	17.5	10	14	6	6	15	29	10	5	6	10	6	6
DGRC-GF-25-...-PA	16.5	7.75	20	10	14	7.1	7.1	19.5	33.5	12	6	6	12	6	6
DGRC-GF-32-...-PA	20	9	24	12	16	7.1	7.1	20	36	12	6	6	12	6	6
DGRC-GF-40-...-PA	23.75	9.75	28	12	16	8.1	8.1	22	38	16	6.8	8	16	8	8
DGRC-GF-50-...-PA	28.5	12	33	14	18	9.1	9.1	26	44	16	6.8	8	16	8	8

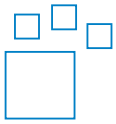
	L1	L2	L7	L9
DGRC-GF-12-10-PA	47.5	32.6	2.8	–
DGRC-GF-12-20-PA	57.5	42.6	2.8	15
DGRC-GF-12-25-PA	62.5	47.6	2.9	15
DGRC-GF-12-30-PA	67.5	52.6	2.9	15
DGRC-GF-12-40-PA	77.5	62.6	2.9	30
DGRC-GF-12-50-PA	87.5	72.6	2.9	30
DGRC-GF-12-80-PA	129.5	102.6	14.9	60
DGRC-GF-12-100-PA	149.5	122.6	14.9	75
DGRC-GF-16-10-PA	47.5	34.2	1.3	–
DGRC-GF-16-20-PA	57.5	44.2	1.3	15
DGRC-GF-16-25-PA	62.5	49.2	1.3	15
DGRC-GF-16-30-PA	67.5	54.2	1.3	15
DGRC-GF-16-40-PA	77.5	64.2	1.3	30
DGRC-GF-16-50-PA	87.5	74.2	1.3	30
DGRC-GF-16-80-PA	137.5	104.2	21.3	60
DGRC-GF-16-100-PA	157.5	124.2	21.3	75
DGRC-GF-20-20-PA	64	44.4	5.6	–
DGRC-GF-20-25-PA	69	49.4	5.6	15
DGRC-GF-20-30-PA	74	54.4	5.6	15
DGRC-GF-20-40-PA	84	64.4	5.6	30
DGRC-GF-20-50-PA	94	74.4	5.6	30
DGRC-GF-20-80-PA	151	104.4	32.6	60
DGRC-GF-20-100-PA	171	124.4	32.6	75
DGRC-GF-25-20-PA	64	44.6	5.4	–
DGRC-GF-25-25-PA	69	49.6	5.4	–
DGRC-GF-25-30-PA	74	54.6	5.4	–
DGRC-GF-25-40-PA	84	64.6	5.4	15
DGRC-GF-25-50-PA	94	74.6	5.4	30
DGRC-GF-25-80-PA	151	104.6	32.4	60
DGRC-GF-25-100-PA	171	124.6	32.4	75
DGRC-GF-32-20-PA	79	47.2	15.8	–
DGRC-GF-32-25-PA	84	52.2	15.8	–
DGRC-GF-32-30-PA	89	57.2	15.8	15
DGRC-GF-32-40-PA	99	67.2	15.8	15
DGRC-GF-32-50-PA	109	77.2	15.8	30
DGRC-GF-32-80-PA	157	107.2	33.8	60
DGRC-GF-32-100-PA	177	127.2	33.8	75
DGRC-GF-40-25-PA	84	57.2	10.8	–
DGRC-GF-40-50-PA	109	82.2	10.8	30
DGRC-GF-40-80-PA	157	112.2	28.8	60
DGRC-GF-40-100-PA	177	132.2	28.8	75
DGRC-GF-50-25-PA	101	60.2	22.8	–
DGRC-GF-50-50-PA	126	85.2	22.8	30
DGRC-GF-50-80-PA	174	115.2	40.8	60
DGRC-GF-50-100-PA	194	135.2	40.8	75

Ordering data

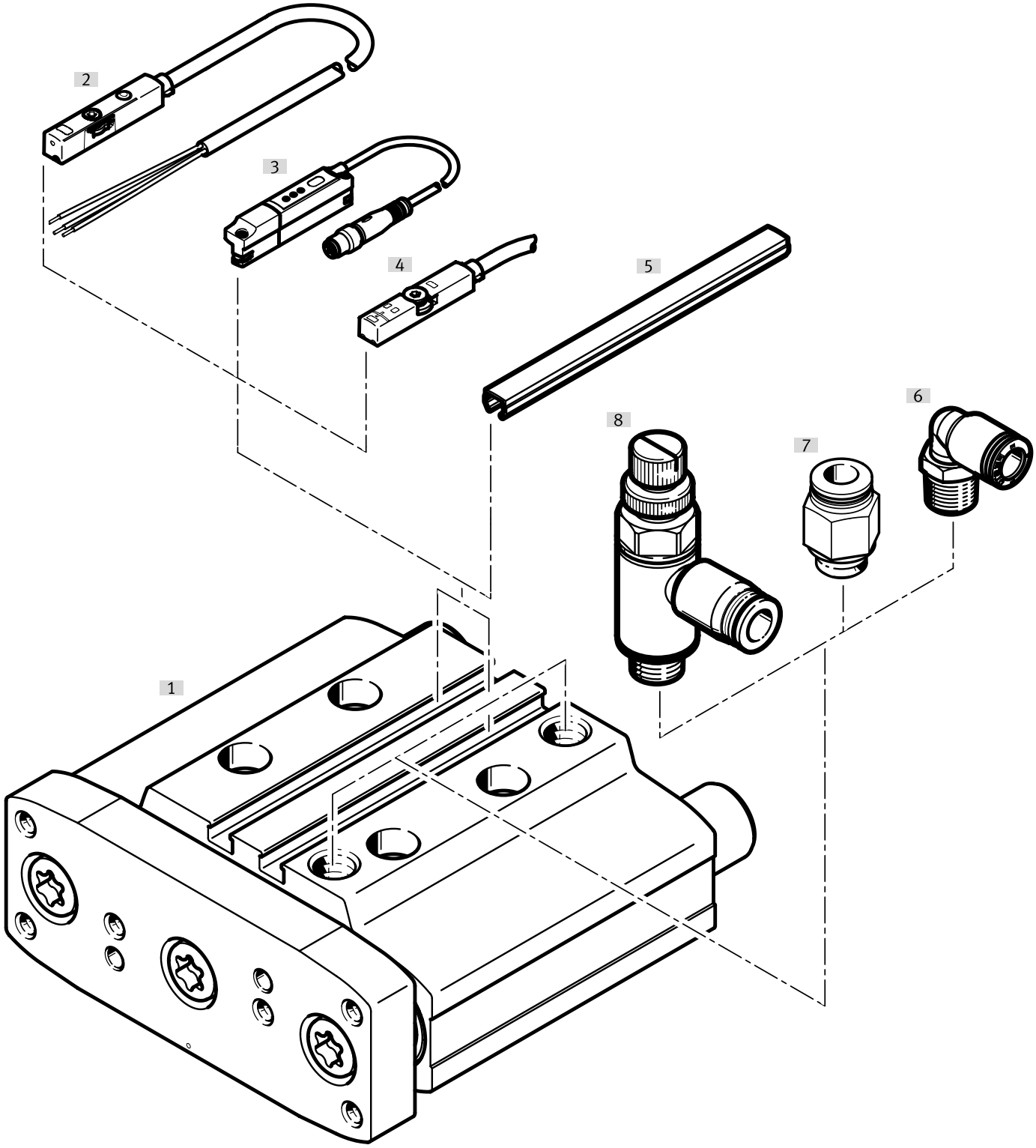
Guided drives DGRC

	Piston Ø	Stroke	Part no.	Type
	12 mm	10 mm	**8218182**	**DGRC-GF-12-10-PA**
		20 mm	**8218183**	**DGRC-GF-12-20-PA**
		25 mm	**8218184**	**DGRC-GF-12-25-PA**
		30 mm	**8218185**	**DGRC-GF-12-30-PA**
		40 mm	**8218186**	**DGRC-GF-12-40-PA**
		50 mm	**8218187**	**DGRC-GF-12-50-PA**
		80 mm	**8218188**	**DGRC-GF-12-80-PA**
		100 mm	**8218189**	**DGRC-GF-12-100-PA**
	16 mm	10 mm	**8218190**	**DGRC-GF-16-10-PA**
		20 mm	**8218191**	**DGRC-GF-16-20-PA**
		25 mm	**8218192**	**DGRC-GF-16-25-PA**
		30 mm	**8218193**	**DGRC-GF-16-30-PA**
		40 mm	**8218194**	**DGRC-GF-16-40-PA**
		50 mm	**8218195**	**DGRC-GF-16-50-PA**
		80 mm	**8218196**	**DGRC-GF-16-80-PA**
		100 mm	**8218197**	**DGRC-GF-16-100-PA**
	20 mm	20 mm	**8218198**	**DGRC-GF-20-20-PA**
		25 mm	**8218199**	**DGRC-GF-20-25-PA**
		30 mm	**8218200**	**DGRC-GF-20-30-PA**
		40 mm	**8218201**	**DGRC-GF-20-40-PA**
		50 mm	**8218202**	**DGRC-GF-20-50-PA**
		80 mm	**8218203**	**DGRC-GF-20-80-PA**
		100 mm	**8218204**	**DGRC-GF-20-100-PA**
	25 mm	20 mm	**8218205**	**DGRC-GF-25-20-PA**
		25 mm	**8218206**	**DGRC-GF-25-25-PA**
		30 mm	**8218207**	**DGRC-GF-25-30-PA**
		40 mm	**8218208**	**DGRC-GF-25-40-PA**
		50 mm	**8218209**	**DGRC-GF-25-50-PA**
		80 mm	**8218210**	**DGRC-GF-25-80-PA**
		100 mm	**8218211**	**DGRC-GF-25-100-PA**
	32 mm	20 mm	**8218212**	**DGRC-GF-32-20-PA**
		25 mm	**8218213**	**DGRC-GF-32-25-PA**
		30 mm	**8218214**	**DGRC-GF-32-30-PA**
		40 mm	**8218215**	**DGRC-GF-32-40-PA**
		50 mm	**8218216**	**DGRC-GF-32-50-PA**
		80 mm	**8218217**	**DGRC-GF-32-80-PA**
		100 mm	**8218218**	**DGRC-GF-32-100-PA**
	40 mm	25 mm	**8218219**	**DGRC-GF-40-25-PA**
		50 mm	**8218220**	**DGRC-GF-40-50-PA**
		80 mm	**8218221**	**DGRC-GF-40-80-PA**
		100 mm	**8218222**	**DGRC-GF-40-100-PA**
	50 mm	25 mm	**8218223**	**DGRC-GF-50-25-PA**
		50 mm	**8218224**	**DGRC-GF-50-50-PA**
		80 mm	**8218225**	**DGRC-GF-50-80-PA**
		100 mm	**8218226**	**DGRC-GF-50-100-PA**

Ordering data

Guided drives DGRC – Modular product system				
	Piston Ø	Stroke	Part no.	Type
	12 mm	5 ... 100 mm	**8225636**	**DGRC-GF-12- -PA**
	16 mm		**8225637**	**DGRC-GF-16- -PA**
	20 mm		**8225638**	**DGRC-GF-20- -PA**
	25 mm		**8225639**	**DGRC-GF-25- -PA**
	32 mm		**8225640**	**DGRC-GF-32- -PA**
	40 mm		**8225641**	**DGRC-GF-40- -PA**
	50 mm		**8225642**	**DGRC-GF-50- -PA**

Peripherals overview



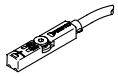
Peripherals overview

Accessories

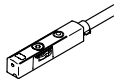
	Type/order code	Description	→ Link
[1]	Guided drive DGRC	Drive with plain-bearing guide	5
[2]	Proximity switch SDBT-MSX	Can be integrated in the profile barrel	22
[3]	Position transmitter SDAT-MHS	Can be integrated in the profile barrel	23
[4]	Proximity switch SMT-8	Can be integrated in the profile barrel	22
[5]	Slot cover ABP-5	For protecting the sensor cables and the sensor slots from contamination	23
[6]	Push-in fitting QS	For connecting tubing with standard O.D	qs
[7]	Push-in fitting NPQE	For connecting tubing with standard O.D	npqe
[8]	One-way flow control valve GRLA	For regulating speed	23

Accessories

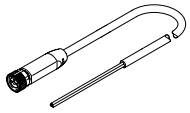
Proximity switch SMT-8M for T-slot, magneto-resistive — Link smt

	Type of mounting	Switching output	Electrical connection	Cable length	Part no.	Type
	Screw-clamped, can be inserted in the slot from above	3-wire NPN N/O contact	Open end	2.5 m	**574338**	**SMT-8M-A-NS-24V-E-2.5-OE**
			Plug M8, A-coded	0.3 m	**574339**	**SMT-8M-A-NS-24V-E-0.3-M8D**
		3-wire, PNP N/O contact	Open end	2.5 m	**574335**	**SMT-8M-A-PS-24V-E-2.5-OE**
			Plug M8, A-coded	0.3 m	**574334**	**SMT-8M-A-PS-24V-E-0.3-M8D**
		2-wire PNP N/O	Open end	5 m	**8165237**	**SMT-8M-A-ZS-24V-E-5.0-OE**

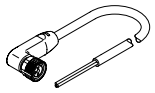
Proximity switch SDBT-MSX for T-slot, magnetic Hall — Link sdbt

	Switching output	Switching element function	Electrical connection	Cable length	Part no.	Type
	PNP/NPN switchable	N/C or N/O, switchable	Open end	2.5 m	**8059121**	**SDBT-MSX-1L-PU-E-2.5-N-LE**
					8059124	**SDBT-MSX-1L-NU-E-2.5-N-LE**
			Plug M8, A-coded	0.3 m	**8059123**	**SDBT-MSX-1L-NU-E-0.3-N-M8**
					8059120	**SDBT-MSX-1L-PU-E-0.3-N-M8**

Connecting cables NEBA, straight

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/cores	Cable length	Part no.	Type
	M8x1 A-coded to EN 61076-2-104	Open end	3	2.5 m	**8078223**	**NEBA-M8G3-U-2.5-N-LE3**
				5 m	**8078224**	**NEBA-M8G3-U-5-N-LE3**

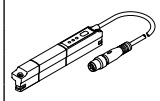
Connecting cables NEBA, angled

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/cores	Cable length	Part no.	Type
	M8x1 A-coded to EN 61076-2-104	Open end	3	2.5 m	**8078230**	**NEBA-M8W3-U-2.5-N-LE3**
				5 m	**8078231**	**NEBA-M8W3-U-5-N-LE3**

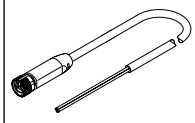
Accessories

Position transmitter SDAT for T-slot, plug M8, A-coded

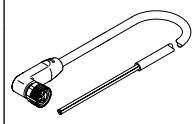
Link sdat

	Sensing range	Analogue output	Electrical connection 1, number of pins/cores	Cable length	Part no.	Type
	0 ... 50 mm	4 - 20 mA	4	0.3 m	**1531265**	**SDAT-MHS-M50-1L-SA-E-0.3-M8**
	0 ... 80 mm				**1531266**	**SDAT-MHS-M80-1L-SA-E-0.3-M8**
	0 ... 100 mm				**1531267**	**SDAT-MHS-M100-1L-SA-E-0.3-M8**
	0 ... 125 mm				**1531268**	**SDAT-MHS-M125-1L-SA-E-0.3-M8**
	0 ... 160 mm				**1531269**	**SDAT-MHS-M160-1L-SA-E-0.3-M8**

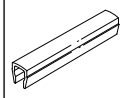
Connecting cables NEBA, straight

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/cores	Cable length	Part no.	Type
	M8x1 A-coded to EN 61076-2-104	Open end	4	2.5 m	**8078227**	**NEBA-M8G4-U-2.5-N-LE4**
				5 m	**8078228**	**NEBA-M8G4-U-5-N-LE4**

Connecting cables NEBA, angled

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/cores	Cable length	Part no.	Type
	M8x1 A-coded to EN 61076-2-104	Open end	4	2.5 m	**8078233**	**NEBA-M8W4-U-2.5-N-LE4**
				5 m	**8078234**	**NEBA-M8W4-U-5-N-LE4**

Slot cover ABP for T-slot

	Description	Housing material	Packaging quantity [pieces]	Part no.	Type
	Length 0.5 m, insertable	ABS	2	**151680**	**ABP-5-S**

One-way flow control valves GRLA

	Pneumatic connection 2	Pneumatic connection 1	Part no.	Type
	M5	Push-in connector, 3 mm	**193137**	**GRLA-M5-QS-3-D**
		Push-in connector 4 mm	**193138**	**GRLA-M5-QS-4-D**
		Push-in connector 6 mm	**193139**	**GRLA-M5-QS-6-D**
	G1/8	Push-in connector, 3 mm	**193142**	**GRLA-1/8-QS-3-D**
		Push-in connector 4 mm	**193143**	**GRLA-1/8-QS-4-D**
		Push-in connector 6 mm	**193144**	**GRLA-1/8-QS-6-D**
		Push-in connector 8 mm	**193145**	**GRLA-1/8-QS-8-D**
	G1/4	Push-in connector 6 mm	**193146**	**GRLA-1/4-QS-6-D**
		Push-in connector 8 mm	**193147**	**GRLA-1/4-QS-8-D**
		Push-in connector 10 mm	**193148**	**GRLA-1/4-QS-10-D**